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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,496	01/09/2002	Brian Eric Lindholm	57761.000185	6659

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EXAMINER

DATSKOVSKIY, MICHAEL V

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,496

Applicant(s)

LINDHOLM ET AL.

Examiner

Michael V Datskovskiy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 08 December 2003.

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-15 and 17-47 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) 20-22 and 41-47 is/are allowed.

6) ☐ Claim(s) 1,7,8,11-15,17-19,23,25,30 and 32-40 is/are rejected.

7) ☐ Claim(s) 2-6,9,10,24,26-29 and 31 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7, 13, 18-19, 23, 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Kozacka.

Kozacka teaches an apparatus, Figs.1-3, for cooling a fuse mounted between two electrical terminals, the apparatus comprising: coolant passages C being thermally-conductively attached to each of the electrical terminals having a shape of a plate; there is a coolant source (col.2, lines 63-64) connected to the coolant passages C. Regarding to the claims 23 and 35: The method steps are inherently necessitated by the device structure as Kozacka shows it. Regarding to the claims 7, 18-19: it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed (in this case what type of electrical device would be protected) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 11-12, 14-15, 30, 32-34, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozacka.

Kozacka discloses the claimed invention except for a list of certain requirements for a choice of materials or materials properties said electrical terminals, coolant passages and cooling fluid are made or chosen from. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a choice of materials or materials properties said electrical terminals, coolant passages and cooling fluid are made from according to the applicant's claims, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

5. Claims 17 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozacka in view of Go et al.

Kozacka teaches all the limitations of the claims except said apparatus further comprises one or more heat exchangers interposed with the one or more coolant

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passages for cooling the coolant fluid. Go et al teach an electronic apparatus liquid cooling system, Fig.1, comprising a heat exchanger 11 interposed with the coolant passage for cooling the coolant fluid. It would have been obvious to one skilled in the art at the time invention was made to employ a heat exchanger interposed with a coolant passage as it is shown by Go et al in the device by Kozacka in order to enhance the heat dissipation. Regarding to the claims 39-40: it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed (in this case what type of electrical device would be protected) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Allowable Subject Matter

6. Claims 20-22, 41-47 are allowed.
7. Claims 2-6, 9-10, 24-29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter: At least one or more electrical protective devices is a fuse array (claims 2-6, 10, 24-29); One or more coolant passages are tubes (claims 9, 31); Grouping of fuses attached to and disposed intermediate the two electrical terminals (claims 20-22); Attaching a pair of coolant passages each having two or more parallel lengths (claim 41-47).

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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Franklin (US Patent 3,678,431) and Ferraz (German Patent DE1948030A).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Datskovsky whose telephone number is (703) 306-4535. The examiner can normally be reached on Mn - Fry 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (703) 308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Primary Examiner

Michael Datskovsky

A handwritten signature in cursive script, appearing to read "Michael Datskovsky", written in dark ink.

December 16, 2003.